Sunday 17:00- 19:00 **Registration, drinks and snacks** (CDO, Queens Building)

Time	Monday		Tuesday		Wednesday		Time
8:00	**Registration** (CDO)		**Registration** (CDO)		**Registration** (CDO)		8:00
9:00	**Welcome** (PLT)		**Plenary** (PLT) *Stéphane Bordas, U. Luxembourg, Luxembourg*		**Plenary** (PLT) *Sam Kaddour, Qinetiq, UK*		9:00
9:20	**Plenary** (PLT) *Javier LLorca, IMDEA, Spain*						9:20
9:40			**Novel Methods I** (PLT) Chair: *Joris Remmers*		**Structures I** (PLT) Chair: *Pedro Camanho*		9:40
10:00	**Materials I** (PLT) Chair: *Michael Wisnom*						10:00
10:20							10:20
10:40			Coffee Break (CDO)		Coffee Break (CDO)		10:40
11:00	Coffee Break (CDO)						11:00
11:10			**Novel Methods II** (1.15) Chair: *Frans van der Meer*	**Hybrid** (1.18) Chair: *Dmitry Ivanov*	**Multi-Scale** (1.15) Chair: *Erik Lund*	**Testing II** (1.18) Chair: *Demirkan Coker*	11:10
11:30	**Impact I** (1.15) Chair: *Christophe Bouvet*	**Materials II** (1.18) Chair: *Alberto Turon*					11:30
11:50							11:50
12:10							12:10
12:30							12:30
12:50	Lunch (CDO)		Lunch (CDO)		Lunch (CDO)		12:50
13:50	**Fatigue** (1.15) Chair: *Masamichi Kawai*	**Materials III** (1.18) Chair: *Javier LLorca*	**Textiles** (1.15) Chair: *Silvestre Pinho*	**Probabilistic and Optimisation** (1.18) Chair: *Raimund Rolfes*	**Structures II** (1.15) Chair: *Stepan Lomov*	**Multi-Functional** (1.18) Chair: *Afzal Suleman*	13:50
14:10							14:10
14:30							14:30
14:50							14:50
15:10					Coffee Break (CDO)		15:10
15:30	Coffee Break (CDO)		Coffee Break (CDO)		**Delamination and Matrix Cracking** (PLT) Chair: *Luiz Kawashita*		15:30
15:50	**Impact II** (PLT) Chair: *Michael May*		**Plenary** (PLT) *Adrian Mouritz, RMIT, Australia*				15:50
16:10							16:10
16:30			**Testing I** (PLT) Chair: *Brian Cox*				16:30
16:50					Conference Close		16:50
17:10							
17:30	Sessions End		Sessions End				
	Walking to Goldney Hall		Transport to SS Great Britain				
18:00	**Welcome Reception** (Goldney Hall)		**Drinks and Tour of SS Great Britain**				
20:00			**Conference Dinner** (SS Great Britain)				
20:30	Transport back to hotels						
22:30			Transport back to hotels				

Time		Monday	
8:00		**Registration (CDO, Queen's Building)**	
9:00		**Welcome (PLT)**	
9:20		**Plenary** **EXPERIMENTAL AND COMPUTATIONAL MICROMECHANICS OF COMPOSITES: TOWARDS A BOTTOM-UP DESIGN APPROACH** *Javier LLorca, IMDEA, Spain*	
10:00		**Materials I** **Chair:** *Michael Wisnom*	
		VIRTUAL TESTS AT THE FIBRE SCALE *Brian Cox,* Teledyne Scientific Co LLC, USA	
10:20		**MODELLING THE ACCUMULATION AND CLUSTERING OF FIBRE BREAKS IN UNIDIRECTIONAL COMPOSITES UNDER LONGITUDINAL TENSION** *Soraia Pimenta, Imperial College London, UK*	
10:40		**MODELING OF THE BEHAVIOUR OF THE FUNCTIONAL INTERPHASE IN THE THIRD GENERATION OF COMPOSITE** *Valentin Priasso, LMT-Cachan, France*	
11:00		**Coffee Break (CDO)**	
11:30		**Impact I (Room 1.15)** **Chair:** *Christophe Bouvet*	**Materials II (Room 1.18)** **Chair:** *Alberto Turon*
		TYRE DEBRIS IMPACT MODELLING ON COMPOSITE WING, INCLUDING FLUID-STRUCTURE INTERACTION *Richard Rigby, Airbus, UK*	**ANALYTICAL PREDICTION OF STRENGTH FOR TOW-BASED DISCONTINUOS COMPOSITES** *Yizhuo Li, Imperial College London, UK*
11:50		**MODELLING IMPACT OF DYNEEMA COMPOSITES** *Mark Hazzard, University of Bristol, UK*	**UD PLY PROPERTY PREDICTION USING COMPUTATIONAL MICROMECHANICS: EXPERIMENTS AND SIMULATIONS** *Carlos González, IMDEA, Spain*
12:10		**LOW VELOCITY IMPACT DEFECTS IN ORGANIC INTERLOCK WOVEN COMPOSITE** *Frederic Laurin, Onera, France*	**EFFECT OF GRAPHENE OXIDE SHEETS AS NANOFILLERS IN POLYPYRROLE /GRAPHENE OXIDE COMPOSITES** *Lawrence Wu, City University of Hong Kong, P.R. China*
12:30		**NUMERICAL INVESTIGATION OF IMPACT INDUCED DAMAGE PROGRESSION IN COMPOSITES AND CORRELATIONS WITH EXPERIMENTS** *Omer Tanay Topac, Middle East Technical University, Turkey*	**VISUALIZATION OF FAILURE BEHAVIOR OF UD COMPOSITES VIA MICROMECHANICAL SIMULATIONS** *Erkan Bektas, Fraunhofer EMI, Germany*
12:50		**Lunch (CDO)**	
13:50		**Fatigue** **Chair:** ***Masamichi Kawai***	**Materials III** **Chair:** ***Javier LLorca***
		FORMULATION OF COHESIVE ZONE MODEL TO SIMULATE FATIGUE DELAMINATION IN LAMINATED STRUCTURES *Laura Carreras, Universitat de Girona, Spain*	**INVESTIGATING THE NON-LINEAR RESPONSE OF IN-PLANE WAVINESS IN UNIDIRECTIONAL LAMINATES** UNDER TENSION *Gaël Grail, Imperial College London, UK*
14:10		**A THICK LEVEL SET INTERFACE MODEL FOR SIMULATING FATIGUE-DRIVEN DELAMINATION IN COMPOSITES** *Mohammad Latifi, Delft University of Technology, The Netherlands*	**ON THE FRACTURE TOUGHNESS FOR FIBRE KINKING: A NUMERICAL PERSPECTIVE** *Renaud Gutkin, Swerea SICOMP, Sweden*
14:30		**MULTI-SCALE MODELING OF THE DAMAGE AND FAILURE OF A CLASS OF HETROGENEOUS MATERIALS UNDER QUASI-STATIC AND FATIGUE LOADS** *Anouar Krairi, UC Louvain, Belgium*	**TENSILE STRENGTH OF BRITTLE MATRIX COMPOSITES WITH HETEROGENEOUS REINFORCEMENT** *Rostislav Rypl, Brno University of Technology, Czech Republic*
14:50		**TIME AND SPACE (4D) HOMOGENIZATION OF COUPLED VISCOELASTIC-VISCOPLASTIC HETEROGENEOUS MATERIALS SUBJECTED TO LARGE NUMBERS OF CYCLES** *Sarra Haouala, UCL, Belgium*	**ELASTIC FIELD IN AN ELLIPTIC INHOMOGENEITY EMBEDDED IN ORTHOTROPIC MEDIA INDUCED BY GAUSSIAN EIGENSTRAINS** *Guohua Nie, Tongji University, PR China*
15:10		**NUMERICAL SIMULATION OF FATIGUE CRACK GROWTH IN THE ADHESIVE BONDLINE OF HYBRID CFRP JOINTS** *Ronny Sachse, University of Stuttgart, Germany*	**AN EXTENDED MORI-TANAKA SCHEME FOR INCREMENTAL, NON-LINEAR RATE-INDEPENDENT PLASTICITY** *Mustafa İnanç, TOBB University of Economics and Technology, Turkey*
15:30		**Coffee Break (CDO)**	

15:50		**Impact II** **Chair: *Michael May***
		A MULTISCALE MODELLING APPROACH FOR SIMULATING IMPACT DAMAGE IN WOVEN COMPOSITE LAMINATES *Martin Schwab, Vienna University of Technology, Austria*
16:10		**IMPACT ON LAMINATED COMPOSITE PLATES: COMPARISON OF TEST AND SIMULATION RESULTS OBTAINED WITH SAMCEF** *Delphine Carrella-Payan, Siemens, Belgium*
16:30		**POST-CRUSHING RESPONSE OF SANDWICH FOAM CORES: MODEL IDENTIFICATION AND VIRTUAL TESTING** *Luigi Gigliotti, Imperial College London, UK*
16:50		**CRUSHING OF AERONAUTICAL COMPOSITE ABSORBERS USING CANONICAL AND PHENOMENOLOGICAL RUIN CRITERIA** *Floran Tostain, Institut Clement Ader, France*
17:10		**AN ENGINEERING SOLUTION FOR THE PHYSICALLY-CONSISTENT SIMULATION OF CRACKING IN UNIDIRECTIONAL COMPOSITES USING CONTINUUM DAMAGE MECHANICS** *Claudio Lopes, IMDEA Materials Institute, Spain*
17:30		**Sessions End**
		Walk to Goldney Hall
18:00		**Welcome Reception (Goldney Hall)**
20:30		**Transport back to hotels**

Time	Tuesday	
8:00	**Registration (CDO, Queen's Building)**	
9:00	**Plenary** (PLT) **MULTI-SCALE METHODS FOR FRACTURE OF HETEROGENEOUS MATERIALS: ALGEBRAIC AND HOMOGENIZATION REDUCTION** *Stéphane Bordas, University of Luxembourg, Luxembourg*	
9:40	**Novel Methods I** Chair: *Joris Remmers*	
	IMPROVED PREDICTION OF OUT-OF-PLANE STRESSES IN SHELLS WITH APPLICATION TO DELAMINATION INITIATION AND PROPAGATION MODELLING BY THE XFEM *Johannes Främby, Chalmers University of Technology, Sweden*	
10:00	**IN-SITU COHESIVE ELEMENT STRENGTH TAILORING FOR COMPOSITES DELAMINATION AT INDUSTRIAL LENGTH SCALES** *Galal Mohamed, University of Bristol, UK*	
10:20	**AN EFFICIENT APPROACH TO THE MODELING OF COMPRESSIVE TRANSVERSE CRACKING** *Frans van der Meer, Delft University of Technology, The Netherlands*	
10:40	**Coffee Break** (CDO)	
11:10	**Novel Methods II (Room 1.15)** Chair: *Frans van der Meer*	**Hybrid (Room 1.18)** Chair: *Afzal Suleman*
	MESH INDEPENDENT MATRIX CRACKING FOR LAMINATES WITH EMBEDDED WRINKLE DEFECTS *Supratik Mukhopadhyay, University of Bristol, UK*	**HYBRID EFFECTS IN THIN-PLY LAMINATES** *Michael Wisnom, University of Bristol, UK*
11:30	**DEVELOPMENT OF A COMPUTATIONAL FRAMEWORK FOR THE LIFE ASSESSMENT FOR FIBRE-REINFORCED COMPOSITES** *Michael Braginsky, University of Dayton Research Institute, USA*	**ANALYSIS OF THE FRACTURE MECHANISMS OF COMPOSITES WITH HYBRID FIBRES** Pedro Camanho, University of Porto, Portugal
11:50	**MIXED-MODE DELAMINATION ANALYSIS OF COMPOSITE LAMINATES WITH XFEM BASED ON A COHESIVE ZONE MODEL** *Saleh Yazdani, Leibniz Universität Hannover, Germany*	**STRATEGIES FOR MAXIMISING THE HYBRID EFFECT IN HYBRID CARBON FIBRE COMPOSITES** Ir Yentl Swolfs, KU Leuven, *Belgium*
12:10	**THE EFFECT OF INHERENT STRUCTURE OF COMPOSITE MATERIALS ON THE STRESS CONCENTRATION IN THE VICINITY OF HOLE** *Gleb Gorynin, Surgut State University, Russia*	**ON THE STIFFNESS OF INTERMINGLED DISCONTINUOUS HYBRID COMPOSITES** *Meisam Jalalvand, University of Bristol, UK*
12:30	**FEASIBILITY INVESTIGATION OF THE EMBEDDED ELEMENT METHOD IN MESO- FINITE ELEMENT MODELLING OF THE TEXTILE COMPOSITES** *Seyed Ahmad Tabatabaei, KU Leuven, Belgium*	**SIMULATION-BASED DEVELOPMENT OF TAILORED CFRP-REPAIR PATCHES** *Matthias Hübner, Technische Universität Dresden, Germany*
12:50	**Lunch** (CDO)	
13:50	**Textiles** Chair: *Silvestre Pinho*	**Probabilistic and Optimisation** Chair: *Raimund Rolfes*
	FAILURE CRITERIA FOR ORTHOTROPIC NON CRIMP FABRIC COMPOSITE STRUCTURES *Henrik Molker, Volvo Car Corporation, Sweden*	**DISCRETE MATERIAL AND THICKNESS OPTIMIZATION OF MULTI-MATERIAL COMPOSITE STRUCTURES** *Erik Lund, Aalborg University, Denmark*
14:10	**DISCRETE MATRIX CRACKING OF TEXTILE-BASED CERAMIC MATRIX COMPOSITES UNDER TENSILE LOADING** *John Shaw, University of California, USA*	**PROBABILISTIC ANALYSIS OF FIRST PLY FAILURE IN A COMPOSITE WIND TURBINE BLADE USING A M-SAF/BAYESIAN FRAMEWORK** *Afzal Suleman, University of Victoria BC, Canada*
14:30	**COMPARISON BETWEEN THREE DIFFERENT METHODOLOGIES TO OBTAIN THE GEOMETRY OF 3D WOVEN COMPOSITES** *Natina Isart, University of Girona, Spain*	**ON THE CORRELATION OF THICKNESS AND STIFFNESS PROPERTIES IN PROBABILISTIC ANALYSES** *Benedikt Kriegesmann, Airbus Operations, Germany*
14:50	**THE COMPRESSIVE STRENGTH OF WOVEN CARBON FIBER REINFORCED PLASTICS** *Jim Schormans, Eindhoven University of Technology, The Netherlands*	**INITIAL POST-BUCKLING OF COMPOSITE CYLINDRICAL SHELLS INCLUDING LOCALIZED PATTERNS VIA MULTI-MODE ANALYSIS** *Eelco Jansen, Leibniz Universität Hannover, Germany*
15:10	**NOVEL METHOD FOR FUNCTIONALIZATION AND PATTERNING COMPOSITE WITH CONTINUOUS REINFORCEMENT: LIQUID RESIN PRINT** *Dmitry Ivanov, University of Bristol, UK*	**OPTIMIZATION OF A STIFFENNED PANEL: A COUPLED DESIGN APPROACH FOR THE SKIN AND THE STIFFENERS** *Samih Zein, Cenaero, Belgium*
15:30	**Coffee Break** (CDO)	

15:50	**Plenary** (PLT) **MULTI-SCALE Z-REINFORCEMENT OF COMPOSITES** *Adrian Mouritz, RMIT, Australia*
16:30	**Testing I** (PLT) Chair: *Brian Cox*
	VIRTUAL TESTING OF COMPOSITES TO BETTER UNDERSTAND PHYSICAL TESTS *Wouter Wilson, Fokker Landing Gear BV, The Netherlands*
16:50	**INVESTIGATIONS OF THE RATE AND TEMPERATURE DEPENDENT BEHAVIOR OF CARBON FIBER REINFORCED COMPOSITES WITH SPLIT HOPKINSON TENSION BAR (SHTB) EXPERIMENTS** *Hanna Paul, Fraunhofer EMI, Germany*
17:10	**DAMAGE RESISTANCE AND DAMAGE TOLERANCE OF THIN-PLY NCF THIN LAMINATES** *Gerard Guillamet, University of Girona, Spain*
17:30	Sessions End
	Transport to SS Great Britain
18:00	**Drinks and Tour of SS Great Britain**
20:00	**Conference Dinner** (SS Great Britain)
22:30	Transport back to hotels

Time	Wednesday	
8:00	**Registration (CDO, Queen's Building)**	
9:00	**Plenary** (PLT) **BRIDGING THE VALLEY OF FAILURE OF COMPOSITES: A PUSH FROM THE WORLD-WIDE FAILURE EXERCISE** *Sam Kaddour, Qinetiq, UK*	
9:40	**Structures I** (PLT) Chair: Pedro *Camanho*	
	DESIGN OF COMPOSITE COMPRESSOR BLADES WITH FOCUS ON THE VIBRATION BEHAVIOUR *Tino Wollmann, TU Dresden, Germany*	
10:00	**ON THE ANALYSIS OF COMPOSITE BOLTED JOINTS USING A NEW PROGRESSIVE DAMAGE APPROACH** *Sven Scheffler, Leibniz Universität Hannover, Germany*	
10:20	**LAMINATE DAMAGE MODEL FOR CFRP STRUCTURES** *Ulrich Mandel, Technische Universität München, Germany*	
10:40	**Coffee Break** (CDO)	
11:10	**Multi-Scale (Room 1.15)** Chair: *Erik Lund*	**Testing II (Room 1.18)** Chair: *Demirkan Coker*
	MULTIPLE LENGTH/TIME-SCALE ANALYSIS OF LARGE COMPOSITE STRUCTURES *Silvestre Pinho, Imperial College London, UK*	**CHARACTERIZATION OF EXTREME VALUE STRUCTURE PROPERTY DAMAGE RESPONSE RELATIONSHIPS IN CONTINUOUS FIBER REINFORCED BRITTLE MATRIX COMPOSITES** *Craig Przybyla, Air Force Research Laboratory, USA*
11:30	**COMPONENT-WISE 1D MODELS FOR DAMAGED LAMINATED, FIBER-REINFORCED COMPOSITES** *Marco Petrolo, Politecnico di Torino, Italy*	**MEASURE OF RATE SENSITIVITY OF MODE II INTERLAMINAR FRACTURE TOUGHNESS USING INFRARED THERMOGRAPHY** *Christophe Bouvet, Université de Toulouse, France*
11:50	**TOW-SCALE ANALYSIS OF STRUCTURES LACKING AN ELEMENTARY REPRESENTATIVE ELEMENT: APPLICATION TO VARIABLE ANGLE TOW COMPOSITES** *Yann Le Cahain, University of Bristol, UK*	**SIZE EFFECT ON LONGITUDINAL SPLITTING IN GEOMETRICALLY SIMILAR SPECIMENS OF UNIDIRECTIONAL CARBON/EPOXY COMPOSITE LAMINATES** *Masamichi Kawai, University of Tsukuba, Japan*
12:10	**MULTI-SCALE SIMULATION USING A HYBRID MASS-SPRING SYSTEM AND FINITE ELEMENT MODEL** *Daniel Hurst, Deakin University, Australia*	**CHALLENGES AND LIMITATIONS IN MEASURING THE MECHANICAL PROPERTIES OF BRAIDED COMPOSITES** *Michael May, Fraunhofer EMI, Germany*
12:30	**MULTI-SCALE ENERGY REGULARIZED PROGRESSIVE DAMAGE MODELS IN STRONGLY HETEROGENEOUS COMPOSITES** *Bassam El Said, University of Bristol, UK*	**MEASUREMENT OF RESIDUAL STRESSES IN CARBON FIBRE COMPOSITE LAMINATES USING THE DEEP-HOLE DRILLING METHOD** *Carlos Garza, University of Bristol, UK*
12:50	**Lunch** (CDO)	
13:50	**Structures II** Chair: *Stepan Lomov*	**Multi-Functional** Chair: *Dmitry Ivanov*
	FINITE ELEMENT ANALYSIS OF A COMPOSITE T-JOINT: EFFECT OF INTERLAMINAR VEILS AND STITCHING *Ying Wang, The University of Manchester, UK*	**OPTIMISATION OF AN AIR FILM COOLED CFRP PANEL WITH AN EMBEDDED VASCULAR NETWORK** *Mack McElroy, NASA Langley Research Center, USA*
14:10	**ON THE APPLICATION OF FRACTURE MECHANICS TO A FULL-SCALE STIFFENED COMPOSITE PANEL TEST** *Xiaodong Xu, University of Bristol, UK*	**MECHANICAL PROPERTIES OF SUPERCONDUCTING COILS AT CRYOGENIC TEMPERATURE** Yunxin Gao, Siemens, *UK*
14:30	**A FIBER BUNDLE MODEL FOR THE STRUCTURAL ANALYSIS OF COMPOSITE PRESSURE VESSELS** *Jörg Multhoff, ISATEC GmbH, Germany*	**STRAIN-BASED DESIGN STRATEGY FOR THE OPTIMAL PLACEMENT OF PIEZOELECTRIC ELEMENTS FOR MULTI-MODAL VIBRATION CONTROL** *Martin Dannemann, TU Dresden, Germany*
14:50		**MULTI-PHYSICS SIMULATION OF LAMINATES WITH PIEZOELECTRIC LAYERS FOR ENERGY HARVESTERS** *Raffaele Ardito, Politecnico di Milano, Italy*
15:10	**Coffee Break** (CDO)	

15:30	**Delamination and Matrix Cracking** (PLT) Chair: *Luiz Kawashita*
	COHESIVE ZONE MODEL FOR INTER-FIBRE FAILURE OF CONTINUUM FIBRE REINFORCED COMPOSITE LAMINATES *Hao Cui, University of Oxford, UK*
15:50	**VIRTUAL CHARACTERIZATION OF DELAMINATION FAILURES IN PULTRUDED COMPOSITE ANGLE CLEATS** *Ana Girão-Coelho, University of Warwick, UK*
16:10	**FIBER BRIDGING IN INTRALAMINAR MODE I FRACTURE OF A UNIDIRECTIONAL CARBON/EPOXY COMPOSITE; EFFECTS OF SPECIMEN SIZE** *Georgios Pappas, EPFL, Switzerland*
16:30	**NUMERICAL INVESTIGATION OF THE EFFECT OF MATRIX CRACKING DISSIPATION ENERGY ON LOAD-DISPLACEMNET RESPONSE OF GLASS-EPOXY STANDARD DCB SPECIMEN** *Hossein Hosseini-Toudeshky, Amirkabir University of Technology, Iran*
16:50	Conference Close